# SAL AMARASINGHE

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Driven, innovative, and curious hardware product manager with deep expertise in end-to-end hardware product development delivering cutting-edge solutions that drive positive impact in multiple industries. Employ extensive background in humancentered design, engineering, and understanding of customer needs to serve as mentor and business partner, leading diverse and cross-functional teams into the future while accelerating the growth of industry-leading organizations.

#### **KEY SKILLS**

Product Management **Business Case Modelling** Technology R&D Prototype Development Product Roadmap Partnership Management User Research & Testing

#### PROFESSIONAL EXPERIENCE

#### Tile (acquired by Life360) | Remote

Principal Product Manager, Hardware

- Product lead for the \$100M Tile location tracking hardware business unit.
- Partnered with engineering and design teams to deliver high quality hardware with the best customer experience.
- Partnered with marketing, sales, and operations to develop go-to-market strategy across various sales channels.
- Partnered with customer care and analytics to ensure hardware KPIs were trending in the right direction.
- Drove alignment across the leadership team with the 3-year hardware strategy and roadmap.
- Built a first-generation hardware product from concept to market launch within 8 months by prioritizing product • features and making tradeoffs to meet customer needs while also balancing the needs of the business.
- Defined two new hardware products to enter competitive new-to-Tile verticals: launching in H1 2023. •
- Interviewed over 100 new and existing customers to identify deep user needs and pain points.
- Conducted 6 rapid experiments in 4 months to test early product market fit around new concepts. ٠
- Led end to end alpha, beta, and field testing of new products with over 100 participants to identify over 30 product issues prior to launch.
- Spearheaded the launch of an internal R&D lab to explore new hardware technologies to drive innovation. •

## SelfSci | Chicago, IL

Co-founder

- Oversee hardware development lifecycle from user stories to deployment and maintenance; recruit and lead a team of 6 to execute a desirable and feasible minimal viable product (MVP); created and launched the world's first realtime, at home, and personalized cortisol measurement system using saliva
- Collaborate with engineers to ensure hardware design and hardware prototypes fulfilled the requirements for the computer vision model; developed state-of-the-art computer vision for the product requiring a smartphone camera photo of a biological test strip to produce a cortisol concentration measurement
- Devise product roadmap, including end-to-end product ideation and launch processes, while considering both the online and offline user experience; independently architected, integrated, and tested engineering concepts to deliver the hardware and biological product requirements document (PRD) feature set within 3 iterations
- Consistently evaluate the business, engineering, and design metrics to push past prior challenges; successfully • enabled product to deliver measurement results within 10 minutes, outperforming the industry standard of 10 weeks with a 91% accuracy rate and positioning the company in a \$422M biohacking market
- Drive project vision and collaborate across a full stack product working with hardware, software, and design teams; collaboratively drew sketches of possible solutions to test the form and function on target customers; developed mockups using rapid prototyping methods, 3D printed models before producing hardware MVP
- Identify and partner with multi-tiered domestic and Asian manufacturers, positioning the company for success and • ensured financial health during the startup phase; scaled production from 10 to 10,000 units
- Create pitch deck and video to present to various institutional and private investors; fundraised \$250K toward ٠ product development while supporting sales and marketing team initiatives
- Accountable for publishing intellectual property (IP), company operations, digital and social media marketing; write . and maintain budget plans to present to internal teams and investors every two months; set pricing to meet revenue and profitability goals and deliver forecasts

January 2022 - Present

September 2019 - September 2021

Hardware (EE/ME) Design Go-to-market Strategy

#### June 2018 - August 2018

#### **IDEO** | Boston, MA *Designer, Intern*

- Performed design research for products and services in sustainable energy using emerging technologies
- Designed and developed an IoT sensor experiment measuring electrical appliance energy usage to influence energy consumption at home and positively impact the demand on the electric grid; observed user needs and built an IoT electrical current sensor to measure energy usage; 80% of participants reduced energy use and 4 realized approx. 6% reduction in utility bill
- Gained comprehensive understanding of the HCD process and building an MVP to run an experiment; developed skills in rapid prototyping with 3D printers, 3D CAD, IoT electronics, SQL queries, and utilizing Python to build a cloud infrastructure on AWS

## Microsoft | Seattle, WA

Hardware Engineer

- Spearheaded the development of multiple hardware modules for 7 Surface devices from ideation to mass manufacturing; selected components, schematic capture, managed the bill of materials (BOMs), verified printed circuit boards (PCB) layout, applied design for manufacturability (DFM) principles, and system bring-up
- Designed, integrated, and tested 12+ electromechanical systems such as flexible PCBs, cables, and connectors, including the electrical and mechanical specifications of the proprietary Surface connector that transferred USB3, DisplayPort, and PCIe signals between hardware modules
- Understood customer needs, defined product requirements, tested key features, supported manufacturing builds, and collaborated with global cross-functional teams; successfully shipped over 1 million units in 3 years
- Built excellent business relationships with vendors, suppliers, and contract manufacturers, facilitating strict adherence to timelines and quality at each stage of product development; negotiated lower costs on parts to enable a 3% cheaper BOM on future production cycles
- Conducted a 3-month failure analysis project and employed design thinking to pinpoint industrial design as the root cause of failures and reason for high customer return rates; secured buy-in for significant product changes, earned recognition from leadership, and realized an 85% reduction in customer returns
- Awarded 3 promotions in 3 years for technical ability, growth mindset, teamwork, and performance; developed a strong understanding of the Waterfall and Agile product development process

# Apple | Cupertino, CA

Engineering Program Manager, Intern

- Hired for technical skillset to lead the failure analysis program for the iPhone and iPod Touch camera modules
- Investigated 20+ failure modes and 1000+ customer returns and uncovered design deficiencies; collaborated with cross-functional teams, including manufacturing and customer relationship management to present failure data and solutions to senior leadership and engineers; improved manufacturing yield and decreased product return rate
- Created dashboards and presentations for effective communication with managers; developed understanding of the customer service pipeline and how to connect user needs to design and engineering

# General Motors | Oshawa, CAN

Product Manager, Intern

- Served on the innovation and strategy team for the Chevrolet Volt electric battery
- Led research project to re-purpose electric vehicle batteries once a car is no longer operational; collaborated with
  internal and external subject matter experts in hardware, software, infrastructure, and manufacturing; prepared a
  comprehensive report with a solution to connect re-purposed batteries to an online electric grid
- Wrote detailed PRDs, presented metrics, and pitched product strategy to executive leadership

## EDUCATION

## Massachusetts Institute of Technology

*Master of Science in Engineering & Management (GPA: 5.0/5.0)* Graduate research assistant (MIT Design Lab) and teaching assistant (15.783/2.739 – Product Design)

## University of Waterloo

Bachelor of Science in Mechatronics Engineering (GPA 3.7/4.0)

September 2014 – September 2017

May 2012 - August 2012

September 2013 – December 2013

2017 – 2019

2009 – 2014